

are burnt year after year, as in parts of Mundgod, there is strong presumptive evidence that the fires have been wilfully lighted.

84. The apparent decrease in the proportion of area protected from fire to the total area, is owing to about 305 square miles of "Protected" forest having been converted into "Reserved" during the year under report.

85. In the Northern Division of Kanara, of the 567.05 square miles attempted to be protected, only 5.23 square miles were reported as having been burnt, the area burnt in the previous year being .38 of the 513.61 square miles fire-traced. Thirty-two fires occurred in the division. Of these, 28 are reported to have been purposely lighted by villagers for grazing purposes.

86. In the Halyál-range, 49 square miles of forest were added to the specially protected area, during the year.

87. The area under protection in Central Kanara, was increased by 13.54 square miles. The cost per square mile was Rs. 24.07, against Rs. 22.92 of 1893-94.

88. No special measures were adopted in Southern Kanara, and the greater part of the Siddápúr and Sirsi ranges was no doubt burnt.

89. The area attempted in Belgaum amounted to 308.43 square miles, against 278.88 square miles in 1893-94. The percentage of failure to area protected, was 2.8, against 2.49. There was a little increase in the expenditure, which came to Rs. 10 per square mile, as against 9.04 of the previous year. The increase was necessitated by the extension of fuel-cuttings in Khánápúr, the protection of which costs more than that of the ordinary forests. The fire-protection had also to be prolonged owing to absence of storms in April and May.

90. One hundred and five cases of fire are reported to have occurred in the protected area, and nearly all of them were, Mr. Murray says, "undoubtedly caused by incendiaries intent on getting an early supply of grass for their cattle or of ashes for their fields."

91. The area attempted in Dharwar, showed a small increase (2.31 square miles), and the results reported compare favourably with those of the previous year. There were 63 reported fires in the division.

92. In Kolábá, about one-quarter of the area of the division was under protection, and 98.93 square miles are reported to have been successfully protected out of 100.57 square miles attempted. The cost, however, is about double that of the previous year, and this is because the number of fire-traces was increased during the year under report.

93. The following areas are estimated to have escaped fire without the adoption of special measures :—

			Acres.
Northern Division of Kanara	...	...	471,531
Central Division of Kanara	...	...	385,142
Southern Division of Kanara	...	...	919,530
Belgaum Division	...	...	230,327
Dharwar Division	...	...	218,921
Bijápúr Division	...	...	88,960
Kolábá Division	...	...	131,448
Ratnagiri Division	...	...	...
Total	...	...	2,445,854

94. The area reported as having escaped fire without the taking of special measures amounted to 4,162 square miles, or 77.3 per cent. of the whole area, during 1893-94. During the year under report, it amounted to 3,822 square miles, or 71.8 per cent. of the whole area. I am afraid that but little reliance can be placed on these figures. Those for Sirsi and Siddápúr, for instance, are, I should say from what I saw, extremely inaccurate. In these two ranges 1,111 acres, of a total area of 531,075 acres, are reported to have been burnt, and the damage is said to have been Rs. 21. In my opinion, a far greater area than that reported was burnt, and it is quite certain that the extent of the fires has been greatly under-estimated in both ranges.

95. Altogether there were 649 cases of detected fires, but the offenders were discovered in only 12.

(3.)—*Regulation of Grazing and Protection from Cattle.*

96. The area closed to all animals amounts to 852 square miles, to browsers 845, and that open to all animals to 3,648 square miles. Details of the areas closed and left open respectively, are given in Appendix 54.

97. The area closed to browsers during the year, shows an increase of 114 square miles. In the reserved forests of Gókák in Belgaum, the grazing of goats and sheep was prohibited. The total area closed to all animals, in the Circle, is the same as the previous year's, but there is an increase of 1, 4 and 24 square miles in Southern Kanara, Belgaum and Kolábá, respectively. Twenty-seven square miles of the area closed during the "whole year" in 1893-94, were only closed for a "part of the year" in 1894-95.

98. The number of cattle impounded during the year under report and the year before, in open and closed forests, is given below :—

Division.	NUMBER OF ANIMALS IMPOUNDED DURING 1893-94.			NUMBER OF ANIMALS IMPOUNDED DURING 1894-95.		
	In open Forests.	In closed Forests.	Total.	In open Forests.	In closed Forests.	Total.
Northern Division of Kanara ...	111	157	268	3	312	315
Central Division do. ...	37	71	108	...	269	269
Southern Division do. ...	8	62	70	...	17	17
Belgaum Division ...	3,527	2,019	5,546	1,783	3,523	5,306
Dharwar do. ...	2,253	981	3,234	2,752	3,501	6,253
Bijápúr do. ...	2,270	1,299	3,569	2,846	1,087	3,933
Kolábá do. ...	...	573	573	244	1,801	2,045
Ratnagiri do. ...	...	224	224	26	268	294
Total ...	8,206	5,886	13,592	7,654	10,778	18,432

99. The increase in the number impounded in Dharwar is ascribed by the Divisional Officer to greater vigilance on the part of the forest-subordinates.

100. There is a relatively large increase in the Central Division, but the number of cattle impounded was still very small for so large an area.

101. In Kolábá, the large increase is mainly due to trespass of cattle on closed areas. Those which were impounded in open forests belonged to persons who declined to pay the fee.

102. The comparatively small increase or decrease in other divisions appears to call for no remark.

### (c).—IMPROVEMENT OF FOREST GROWTH.

#### (1).—Natural Reproduction.

##### (1).—By Seed.

103. Owing to the increased prevalence of fires and the long drought the season was a most unfavourable one for natural reproduction by seed.

104. During my tour in the Gokák-forests of the Belgaum Division, I was pleased to see that there had been at least no deterioration since I last visited them some years ago, the general impression left on my mind being that the better parts had, if anything, improved.

105. In the Bijápúr Division, which is the driest in the Circle, I was struck with the excellent natural growth, from seed of *Dodonaea viscosa* and *Chloroxylon swietenia* in places in which sand had collected in the interstices of rock, or in the hollows. But, at the same time, it was very apparent that cattle had trespassed greatly on the closed portions of the reserves, and it seems to be necessary in this, as well as in other dry districts, to resort to the fencing of closed areas. If, therefore, barbed wire-fences, which are about to be tried in the more valuable forests, prove a success, it may perhaps be worth while to introduce them in the scrub-jungles of Bijápúr, Dharwar and Belgaum, in none of which illicit grazing can, it seems, be suppressed by ordinary means.

106. Curiously enough, some of the best natural reproduction by seed is to be found in the young coppice-forests from which fuel for the West Deccan Railway is procured. In them, vigorous young seedlings of the better kinds may be seen flourishing even under dense coppice. Numerous seedlings of the following species were noticed :—*Careya arborea*, *Xylia dolabriformis* (now